

The Time Value of Money¹

The following chart shows the investment activity of two investors. Both investors are the same age. Investor “A” invests \$2000 a year for 10 years, beginning at age 25. Investor “B” invests \$2000 a year, for 31 years beginning at age 35. Both receive a 9% fixed rate of return, compounded monthly. Interest is left in the account to earn interest on itself.

<u>Age</u>	<u>Contributions</u> <u>Investor “A”</u>	<u>Year End Value</u> <u>Investor “A”</u>	<u>Contributions</u> <u>Investor “B”</u>	<u>Year End Value</u> <u>Investor “B”</u>
25	\$2000	\$ 2188	\$0	\$0
26	2000	4580	0	0
27	2000	7198	0	0
28	2000	10,061	0	0
29	2000	13,192	0	0
30	2000	16,617	0	0
31	2000	20,363	0	0
32	2000	24,461	0	0
33	2000	28,944	0	0
34	2000	33,846	0	0
35	0	37,021	2000	2,188
36	0	40,494	2000	4,580
37	0	44,293	2000	7,198
38	0	48,448	2000	10,061
39	0	52,992	2000	13,192
40	0	57,963	2000	16,617
41	0	63,401	2000	20,363
42	0	69,348	2000	24,461
43	0	75,854	2000	28,944
44	0	82,969	2000	33,846
45	0	90,752	2000	39,209
46	0	99,265	2000	45,075
47	0	108,577	2000	51,490
48	0	118,763	2000	58,508
49	0	129,903	2000	66,184
50	0	142,089	2000	74,580
51	0	155,418	2000	83,764
52	0	169,997	2000	93,809
53	0	185,944	2000	104,797
54	0	203,387	2000	116,815
55	0	222,466	2000	129,961
56	0	243,335	2000	144,340
57	0	266,162	2000	160,068
58	0	291,129	2000	177,271
59	0	318,439	2000	196,088
60	0	348,311	2000	216,670
61	0	380,985	2000	239,182
62	0	416,724	2000	263,807
63	0	455,816	2000	290,741
64	0	498,574	2000	320,202
65	0	545,344	2000	352,427
Value at Retirement		545,344		352,427
(Less Total Contributions)		(20,000)		(62,000)
Net Earnings on Investment		525,344		290,427

¹ Taken from National Institute for Consumer Education. *Consumer Approach to Investing*. Ypsilanti, Michigan: Eastern Michigan University, 1992.

BUDGET MONTH-TEN

Your company offers a 401-k plan that matches your contributions dollar for dollar, but your monthly contribution cannot exceed 10% of your salary. You are given the choice of the mutual funds in which you would like to invest.

Questions to be answered:

How does a 401-k work? _____

How much will you contribute each month? _____

What mutual funds will you pick? _____

Briefly describe each fund.

In dollars, how much of the total (both your contribution and the company match) will you allocate to each fund? _____

Explain why you selected that dollar amount for each fund?

Month-Ten Ledger Sheet

Disposable Income	Payroll Deduction for 401-k Investments	Other Monthly Expenses (Apartment Rent, Rental Insurance, Clothing, Gasoline, Entertainment, Food and Utilities, and, Car Payment and Auto Insurance, Health and Life Insurance)	Running Balance

How much do you have left for savings after Month-Ten? _____

Mutual Fund Investments

Mutual Funds Selected	Purchase Price